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2013 Sustainable and Organic Agriculture Neely-Kinyon Farm Field Day

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2013 Sustainable and Organic Agriculture Neely-Kinyon Farm Field Day

By Kathleen Delate, Extension Organic Specialist

Sustainable and organic ag topics will be the theme of the Iowa State University Neely-Kinyon Farm Field Day on Tuesday, August 20 in Greenfield, Iowa, starting at 4 p.m. (includes a light supper).

Over the last decade, organic food sales have tripled in the United States, leading many Iowa producers to investigate organic farming. The USDA National Agriculture Statistics Service (NASS) reported that Iowa's 467 organic farms had $60.7 million in sales in 2011, which led to a ranking of fifth place in the nation in the number of certified organic farms.

The summer of 2013 has been challenging for all farmers, with excessive rains in May and June causing late planting and re-plantings, followed by dry weather since July. While soybeans can provide some level of yield planted as late as mid-July, replanted corn presents a riskier proposition. According to Iowa State research, producers can expect a 33 to 66 percent loss from maximum yield from corn planted July 1-10, regardless of whether an earlier maturing variety was substituted and depending on the first killing frost date.

Weeds are the main concern this year for late-planted or replanted fields. Many organic farmers missed rotary hoeing due to wet soils and faced extensive weed pressure in the crop row. Cultivation was effective in burying many weeds in the row, but additional "walking" for weeds was often needed. Additionally, many organic farmers who could not use regular tillage equipment this season because of wet fields employed a tractor-pulled propane gas burner to 'flame' weeds in the row. Organic corn, soybean and alfalfa production (oats have been harvested) will be viewed within the LTAR, the Long-Term Agroecological Research experiment at the Neely-Kinyon Farm. Supported by the Leopold Center for Sustainable Agriculture, the LTAR is one of the longest-running comparisons of organic and conventional crops in the United States.

Over 13 years of the LTAR, corn yields in the organic corn-soybean-oat/alfalfa-alfalfa rotation, at 178 bu/acre, averaged 99 percent of the average conventional corn yield at 180 bu/acre. Organic soybean yields, averaging 52 bu/acre, were 5 percent greater in the organic rotations compared to conventional soybean yields at 49 bu/acre. Organic oat and alfalfa yields, at 103 bu/acre and 4.4 tons/acre, respectively, exceeded county averages of 73 bu/acre and 3.3 tons/acre. Similar pest populations occurred in organic crops, without the use of petrochemicals, compared to conventional crops maintained with synthetic pesticides.

Cynthia Cambardella, USDA–ARS soil scientist at the LTAR, will address how soil organic carbon, total nitrogen, and extractable K and Ca were 5.7 percent, 9.5 percent, 14.2 percent and 10.8 percent higher in organic soils, respectively. Soil properties related to biologically active organic matter were up to 40 percent in organic soils. These results suggest that organic farming can foster greater efficiency in nutrient use and higher potential for

sequestrating carbon.

Finally, the economic benefits of organic production will be discussed, as the returns from organic production at the Neely-Kinyon Farm returned roughly $200 per acre more than conventional crops over 13 years of the LTAR study. Consistent demand and industry-wide shortage of organic materials from the United States will likely lead to even higher farm-gate prices.

The USDA-NIFA organic vegetable project will also be highlighted, demonstrating soil quality benefits of organic no-till and yield benefits for sweet corn, tomatoes and peppers from mulching, compost and cover crops. Cover crops have been shown to decrease nitrates in lysimeters measuring water quality in this experiment. Dale Raasch of Bridgewater, Iowa, will discuss his production and marketing strategies for organic produce and meat, which will be served at the supper. Representatives from the USDA-Natural Resources Conservation Services (NRCS), Barb Stewart and Alan Long, will discuss NRCS cost-share programs for cover crops and other programs that organic farmers can utilize. Other local foods will include organic vegetables from H.A. Wallace Country Life Center and Picket Fence ice cream.

The Field Day will be held in conjunction with Practical Farmers of Iowa. For more information, contact Kathleen Delate at 515-294-7069 or at kdelate@iastate.edu, or Kathy Rohrig, Adair County Extension, krohrig@iastate.edu, 641-743-8412.
